



BHA Medication & Doping Control Research Summary: Salmeterol xinafoate (Serevent®, Evohaler GSK)

Why the research was needed

Salmeterol is used in horses to treat respiratory disease; it is a bronchodilator that works by widening the airways and is given via a 'puffer' (Metred Dose Inhaler) with a spacer device between the puffer and the horse's nose. The primary aim of these studies was to develop advice for veterinarians and trainers on the use of this medication. The studies were part of the 2011 programme to develop advice for 'priority substances' by the European Horserace Scientific Liaison Committee ([EHSLC](#)). By working as a member of the EHSLC we reduce the overall number of animal studies needed and prevent spending unnecessary time and money through pooling of information. We usually also achieve harmonisation on the output, usually a [Detection Time](#), and it's underlying screening limit both within Europe and now beyond via our input into the [IFHA](#)'s work on International Screening Limits.

Overview of the study

The work was carried out with horses at the Authority's Centre for Racehorse Studies with analysis at HFL Sport Science. Research procedures, complying with the Animals (Scientific Procedures) Act were subject to ethical review and the analyses were conducted to industry standard quality procedures. A pilot study in February in two horses refined the design for administration in a further four horses in the autumn, with data extensively discussed and decisions made on advice in October 2011. This drug is used under the '[cascade](#)' in horses; the dose in the studies, 0.1mg (4x 25µg actuation per dose) twice/day for 5 days, was decided after consultation with UK vets as to what was their most commonly used regimen. An intravenous catheter was used for the first two days of more intensive blood sampling and then removed.

Outcome

A Detection Time \leq 48 hours for [salmeterol](#) has been published by the BHA 28th November 2011. It should be noted that this is not yet agreed internationally but discussions towards that harmonisation are to continue December 2011 with decisions expected to be ratified in February 2012. Further advice on the use of a related medication from the same family of drugs, [salbutamol](#), will follow in early 2012 following completion of its administration in a final pair of horses at the CRS.